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PLACE OBTAINED

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DATE OBTAINED \_\_\_\_\_ DATE PREPARED 1 April 1953

REFERENCES 25X1C

PAGES 5 ENCLOSURES (NO. & TYPE) 11 - eleven sketches on ditto

REMARKS

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1. During the second half of 1952, a total of 52 shrapnelproof aircraft revetments, including two experimental revetments, were constructed at the round concrete hardstand along the northern and southern taxiways at Brand airfield. Construction of the first test revetment had started on 7 August and, by order of the Soviet construction headquarters, was to be completed by 15 August. On this day, the revetment was to be inspected by a Soviet Air Force general who allegedly was the commander-in-chief of the Soviet Air Force in East Germany. Test blasting showed that the sidewall could easily be damaged. Therefore, the sidewall designed bends so that only one portion of the wall was exposed to the blast pressure. About the end of 1952, the Soviet construction staff accelerated the completion of the revetments. In early December, an additional 120 Soviet soldiers were assigned to the field construction work by the Soviet construction headquarters in Brand. This and other measures made it possible to keep the target date of completion which was fixed on 20 December. Only earth work was still to be done after that date. After several changes in the construction plan a type of construction was found which met the Soviet requirements and contained essential suggestion of the former construction superintendent who had fled to the west. Final decisions on the construction of the rear walls of the revetment were reached only in late November 1952. The German construction staff in Brand which exchanged experiences with the German construction staff at Welzow airfield stated that the construction of such revetments simultaneously was in progress in Welzow. However, the revetments in Welzow allegedly differed in their shape and design from those in Brand. For construction sketches, see Annexes 1 to 11.
2. Originally round concrete hardstands were constructed at the field. Subsequently, rectangular concrete parking strips, 30 x 12 meters, were built and surrounded by shrapnelproof walls along their longitudinal sides and rear side, while the side facing the hardstand remained open. Roofs for the revetments were not envisaged. The rear ends of the sidewalls are 9 meters apart. The inside width is about 22 meters. The sidewalls consist of two parallel concrete walls which taper to the top and are filled with sand.

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3. The concrete walls consist of U-shaped concrete sections interconnected by concrete slabs. These U-shaped sections which are arranged in pairs are embedded in a concrete foundation extending 80 cm below the surface of the ground. The pairs of U-shaped sections facing each other in two parallel sidewalls are interconnected by joining pieces (Kappenbalken). The slabs at both ends of the sidewalls are fastened by rod iron extending as far as the fourth U-shaped section. The rear section of a revetment consists of a triangle slanting wall supported by concrete props.
4. The height of the concrete walls varies. Section A is 350 cm high i.e. the height of 7 slabs of 50 cm each and has the length of 8 slabs. Section B is 400 cm high, i.e. the height of 8 slabs of 50 cm each and has the length of 10 slabs. Section C is 405 cm high i.e. the height of 2 slabs. Section D is 350 cm high, i.e. the height of 7 slabs of 50 cm each and has the length of 10 slabs.
5. The concrete slabs used include slab type 1 which is 120 cm long and 50 cm high and slab type 2 which is 150 cm long and 50 cm high. These two types of slabs were only used for the first 12 revetments, while the other revetments were constructed of slabs with the standard length of 140 cm and the height of 50 cm. Slab type 3, the inner joining piece between sections A and B, is 144 cm long at the bottom and 90 cm at the top, its total height being 405 cm; this slab consists of two sections with a total weight of 730 kg. Slab type 4, the outer joining piece between sections A and B, is 228 cm long at the bottom and 174 at the top, its total height being 405 cm; this slab consists of two sections with a total weight of 1,250 kg. Slab type 5, the angular section at the rear wall, is 735 cm long at the bottom and 78 cm at the top, its total height being 350 cm; this slab consists of 7 sections each 50cm. Slab type 6, the forward end piece, is 180 cm long at the bottom and 42 cm at the top, its total height being 345 cm; it consists of two sections with a total weight of 600 kg. Slab type 7, the after end piece, is 180 cm long at the bottom and 22 cm at the top, its total height being 405 cm; it consists of two sections with a total weight of 640 kg. All the slabs are 7 cm thick. The slabs of types 1, 2, and 5 are reinforced by iron rods which show as ribs on one side of the slab, i.e. on the outside. The inner and outer joining pieces of types 3 and 4 are smooth on both sides.
6. The concrete U-shaped sections have the following lengths:
- Wall sections A and D: 408 to 410 cm
- Wall section B: 458 to 460 cm
- The fastening pieces on top have the following lengths:
- Wall section A: 110 cm
- Wall section B: 88 to 90 cm
- A total of 180 concrete sections are required for each revetment, including the fastening pieces for the forward and after end pieces which are of the same configuration as the U-shaped sections, 40 fastening pieces on top, and 11 props for the rear wall.

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7. A total of 145 cubic meters of sand are filled in one sidewall (A, B, and C) and 238 cubic meters of sand are filled in the rear wall D of each revetment.
8. The mixing ratio for all concrete sections was the same as that used for the runway, except that gravel was used instead of chippings. The reinforcement of the concrete slabs is designed to restrict the blasting effect of bombs. The rod iron used for the reinforcement of slabs is to be 6 mm in diameter. However, rod iron 10 mm in diameter was often used at Brand airfield as this was still available from other construction projects.
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9. The following observations were made at the field between 5 and 29 December:

5 to 19 December. There was no air activity at the field. Between the engines of aircraft were individually started.

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23 December. there was air activity by jet bombers. About 40 individual local flights were made. There was clear weather and a light westerly wind.

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29 December. There was an overcast of about 2/10 at an altitude of 300 meters and a light southeasterly wind. Visibility was limited to 1.5 or 2 km. A jet bomber took off at 10 a.m.. An IL-28 plane

[redacted] took off toward the west [redacted] and landed

[redacted] One man was observed in the rear gunner's station.

The tail guns were placed at an angle of 20 degrees during the entire flight. An IL-28 plane [redacted] took off about

[redacted] One man was observed in the rear gunner's station. The rear gun formed an angle of 60 degrees at the take-off and an angle of about 20 degrees during the flight and landing. [redacted] 14. take-offs were made by jet bombers which flew individually and at a low altitude.

On all the days of observation, 18 jet bombers without auxiliary fuel tanks were parked in groups of 7, 6, and 5 planes in the middle of the southern taxiway, the individual groups being about 50 meters apart. There was no air activity on the other days of the covered period which are not mentioned above.<sup>2</sup>

10. Since early December 1952, 100 to 150 civilians have been engaged for removing snow and ice formations on the runway and taxiway even at night. A red-brown gravel-like sand was being strewn on the runway two or three times a day. For this purpose, a roller-like device about 6 meters wide and towed by an electric truck was used.<sup>3</sup>
11. Some of the officers previously stationed at the field, including Sub-lieutenant (adm) Kovalevski (fnu), were transferred in early December. The soldiers of the searchlight detachment were also exchanged. The new soldiers stationed at the searchlights wore red-bordered black epaulets and showed rather poor discipline. They said that they came from Frankfurt/Oder.<sup>4</sup>
12. Shortly before the jet engines were started, small black carriages each with three rubber wheels, apparently with solid tires, arrived at the planes. The noise produced by these vehicles was similar to the noise of a planer.<sup>5</sup>

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14. On 8 December, [redacted] shrapnelproof revetments were under construction around hardstands along the two taxiways. German laborers and 90 to 100 Soviet soldiers were commanded by two officers employed there. The concrete sections were hauled to the sites by Soviet trucks.

15. On 19 December, snow and ice was removed from the runway by means of a device.<sup>3</sup>

16. On 23 December, 52 shrapnelproof revetments were completed at the field. Only the filling with earth was delayed because of the frost. The buildings, except for the school, were also completed.<sup>1</sup>

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1. Comment. For 11 sketches with details on the construction of shrapnelproof aircraft revetments at Brand airfield, see Annexes 1 to 11.

Annex 1 shows the plan view of a shrapnelproof aircraft revetment. See paragraphs 2, 4, 5, 6, 7, and 8.

Annex 2 is a cross section of a concrete wall. See paragraph 2.

Annex 3 represents a top view of a concrete wall. See paragraph 3.

Annex 4 shows the rear section of an aircraft revetment. See paragraph 3.

Annex 5 shows cross sections of the foundation of the concrete wall. See paragraphs 1 and 6.

Annex 6 shows cross sections of the joining piece. See paragraphs 1 and 6.

Annex 7 shows sketches of concrete slabs. See paragraph 5.

Annex 8 shows iron rods used for the reinforcement of concrete sections. See paragraph 8.

Annex 9 represents cross sections of concrete elements showing their reinforcement.

Annex 10 is a sketch of a concrete foundation. See paragraph 3.

Annex 11 shows joining piece connecting sidewalls. See paragraph 3.

On 26 August 1952, the experimental shrapnelproof aircraft revetment was inspected by high-ranking Soviet officers including General Chuikov who is said to be the commander-in-chief of the Twenty-Fourth Air Army. The same observation was made at Werder airfield.

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2. Comment. There was comparatively little air activity at the field. Only individual flights were made by members of the bomber regiment which is equipped with 18 IL-28s including some Uil-28s.

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3. Comment. The runway was probably strewn with rock salt.

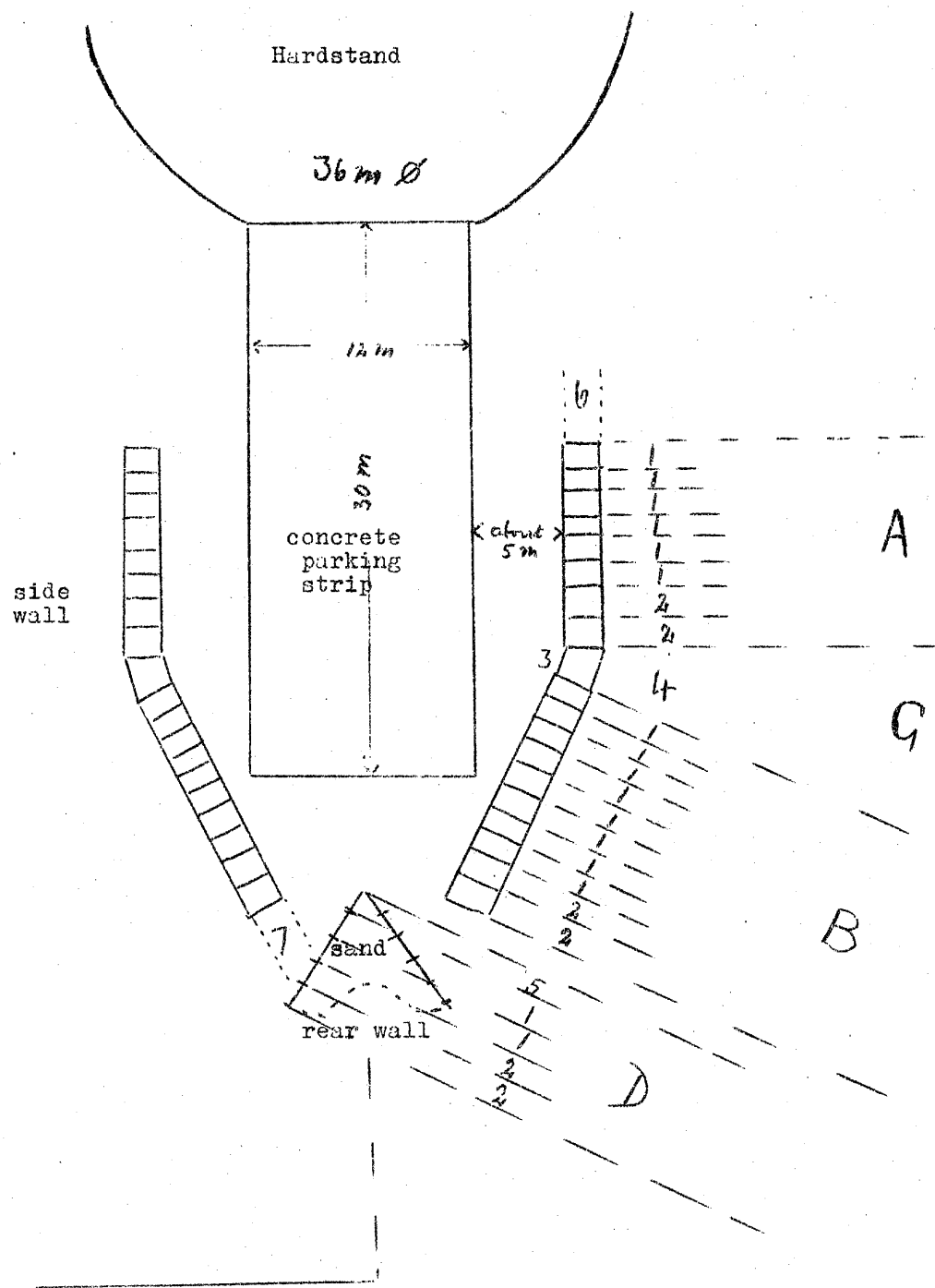
4. Comment. The personnel were probably subjected to a periodical exchange. Sub-Lieutenant Kovalevski is unknown.

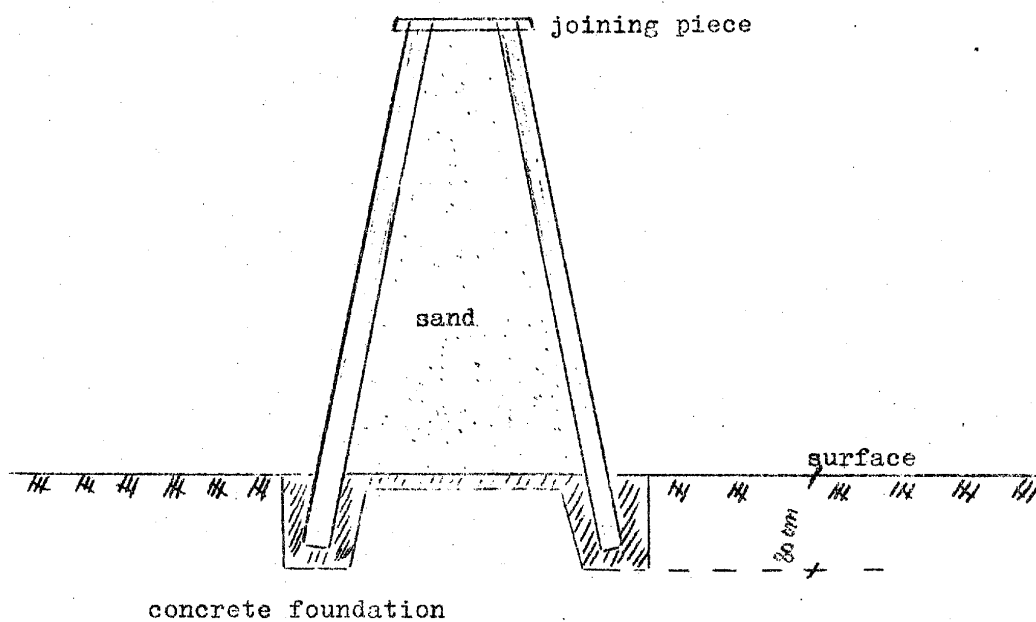
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5. Comment. Three wheel carriages are reported for the first time. Previously, two-wheel and four-wheel carriages were mentioned. However, it is believed that the starter carriages observed are of the same type.

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Top View of Shrapnelproof Aircraft Revetment  
at Brand Airfield

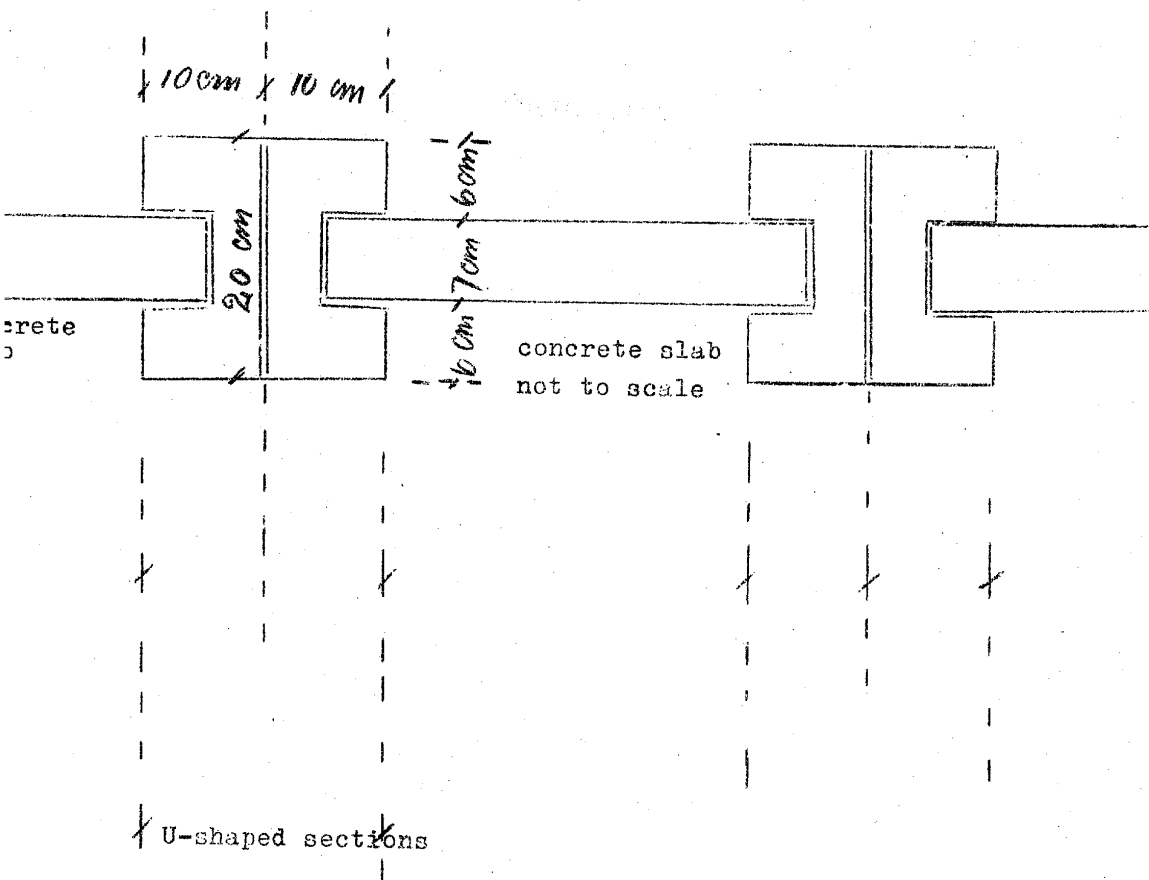


Cross Section of Concrete Wall

Annex 3

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Top View of Concrete Wall



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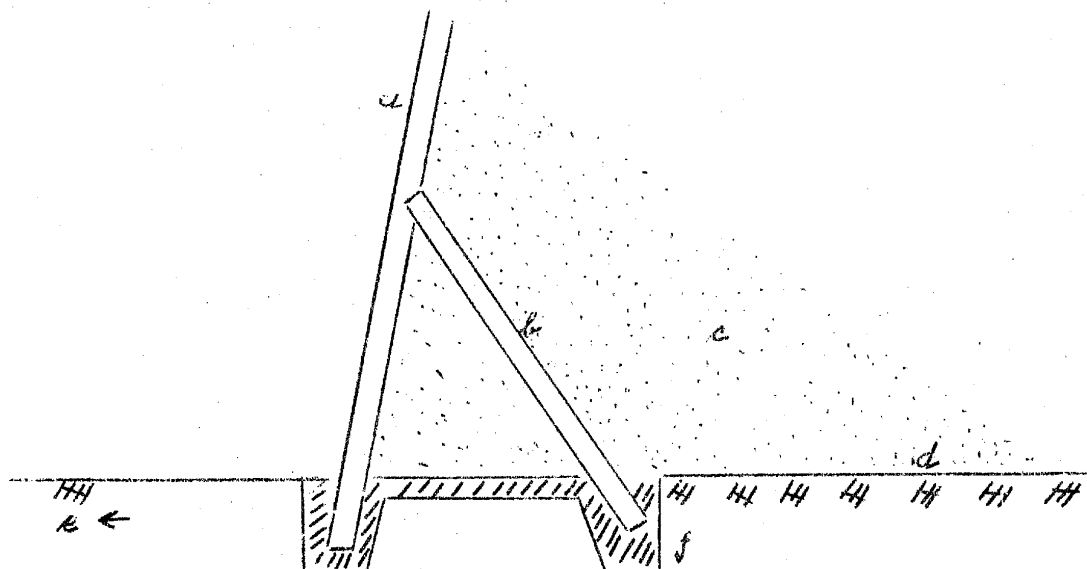
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Annex 4

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Rear Section of Aircraft Revetment



Legend:

- a Concrete wall
- b Concrete prop
- c Sand
- d Surface
- e Parking lane
- f Foundation

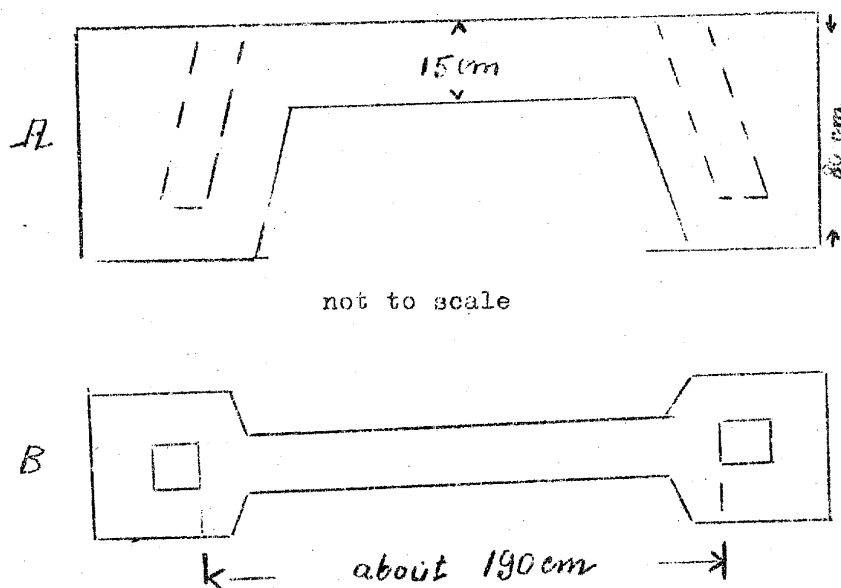
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Annex 5

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Foundation of Concrete WallLegend:

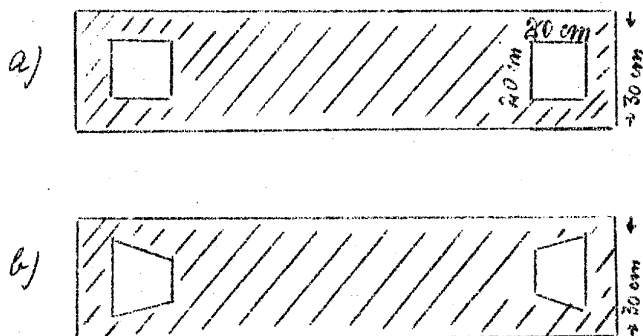
- A Vertical cross section
- B Horizontal cross section

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Annex 6

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Cross Sections of Joining PiecesLegend:

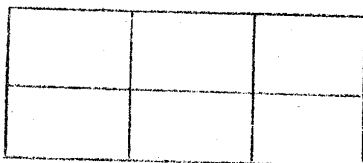
- a Standard joining piece
- b Joining/ of types 3 and 4 piece

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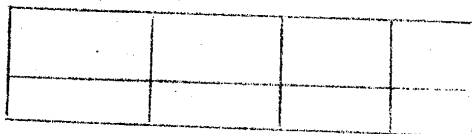
Annex 7

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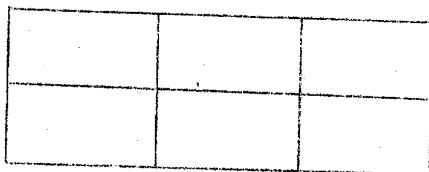
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Concrete Slabs*A*

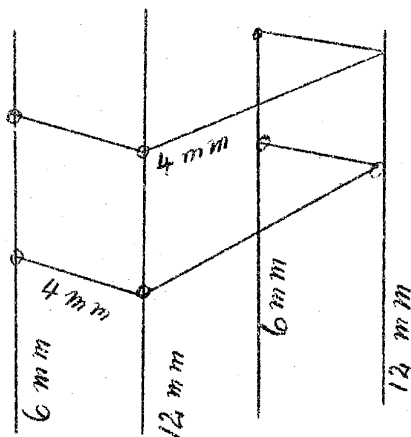
Concrete slab type 1  
120 x 50 cm

*B*

Concrete slab type 2  
150 x 50 cm

*C*

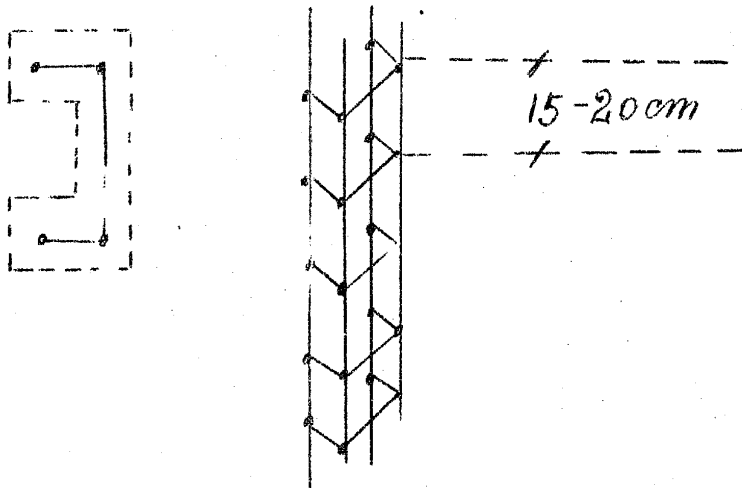
Standard concrete slab  
140 x 50 cm

Iron Rods Used for the Reinforcement of Concrete Sections

Annex 9

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Cross Sections of Concrete Elements Showing Reinforcement

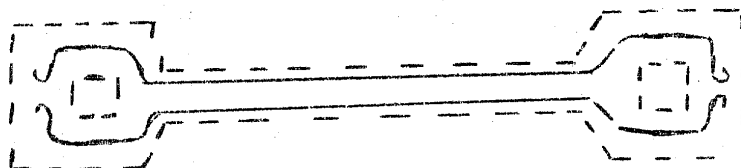
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Annex 10

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Cross Section of Concrete Foundation

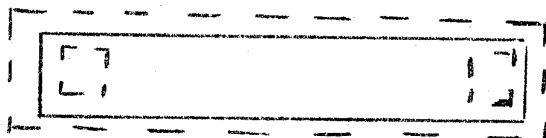
Rod iron used at the field was 10 to 12 mm in diameter,  
occasionally thicker

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Annex 11

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Rod iron 12 mm in diameter

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